

Wisconsin Urban & Community Forests

A Quarterly Newsletter of the Wisconsin Department of Natural Resources, Forestry Division

What Can a DNR Urban Forestry Grant Buy for Your Community?

by Stacy Schaefer, Urban Forestry Specialist
Sigurd Olson Environmental Institute
and
Katherine Esposito, Communication Specialist
DNR Division of Forestry

No two places are alike, of course, so there are as many answers as there are cities, villages and towns. But for the city of Ashland, population 8,200, three years of back-to-back matching grants have meant this:

- An inventory of all trees on public lands and in parks.
- A five-year management plan to decide how to care for those trees.
- Workshops on sound forestry practices.
- Tree City USA awards for both 2003 and 2004.
- The hiring of a part-time urban forestry consultant.
- Removal of declining trees.
- Pruning healthy ones.
- Training city employees in proper tree care.

And, last but not least, all these new urban forestry efforts have stimulated community enthusiasm to go further. One example is a new hotel parking lot on Lake Superior that was engineered to drain its storm runoff into a rain garden, complete with blue-eyed grass, various types of sedges, Joe pyeweed and dozens of other native species.

Meanwhile, Ashland's beautification council was inspired to help start a small nursery to grow elm

trees tolerant to Dutch elm disease. The saplings, 24 in all, will eventually be planted on city streets.

Ashland didn't get the DNR grants by itself, however. It joined forces with Northland College's Sigurd Olson Environmental Institute, a collaboration that continues today.

As part of its mission, the institute and its students help local residents and communities to achieve their

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A young Arbor Day participant tells Ashland's urban forester, Dan Maderich, a little bit about where to plant a tree.



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Governor Announces 2005 UF Grant Recipients

Madison – In March, Governor Jim Doyle announced that 62 Wisconsin communities and nonprofit organizations will receive a share of \$627,600 in Urban Forestry Grants in 2005 for community projects ranging from development of urban forestry plans and urban forest maintenance to staff training and creation of volunteer involvement programs. Eleven communities received the maximum grant possible of \$25,000.

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Special Insert: "Greening the Cities"

Do you ever cringe when a road construction crew gets too close to your beautiful city trees? It's one type of damage that's nearly impossible to reverse. Read how one community prevents tree construction damage in this issue's special insert: "Greening the Cities," reprinted from the winter 2005 issue of the *Wisconsin Academy Review*. Written by Katherine Esposito, DNR urban forestry communications specialist. The article may also be downloaded from our Web site (see page 2).

Inspired? Call your regional urban forestry coordinator, listed on the back cover, for assistance. 🌳

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Community Profile:

Population: 39,371
Street Miles: 251
Public Trees: 19,000
Number of Parks: 24
Park & Open Space
Acreage: 1795

Program Profile:

Staff:
Bill Kolstad, parks,
rec & forestry dir.
Gary Majeskie, parks
& forestry supt.
John Makowski, city
arborist
3 horticulturists
3 park maint/equip.
operators
1 crew chief
Forestation Committee:
Ald. Mike Franz,
chairman
Ald. James Heinrich
Ald. Thomas
Schellinger
Ald. Rick Owen
Ald. Ron Balzer
Equipment:
Hi ranger
4 one-ton dump trucks
brush chipper
stump grinder
water trailer
skid steer loader
tractors
pick-up trucks
dump trucks, as
needed

Tree City, USA:
since 1998
Growth Awards: 1999

**2003 Program
Statistics:**
trees planted: 104
trees removed: 426
trees pruned: 1688

**2003 Operating
Budget:**
\$171,607

Community Profile:

City of Brookfield

by Gary Majeskie
City Forester

The city of Brookfield is considered by many to be the gateway to Waukesha County. Located on the county's eastern edge, it has many of the advantages of a metropolitan area but is far enough away to provide many open-space benefits. Our slogan, "City in the Country," seems to describe the community appropriately.

The first settler arrived in Brookfield in 1836. The original settlers started an inn for travelers. Brookfield is half way between Milwaukee and Waukesha and became well known for its inns in the early history of the community. The early community was a supplier of fruits and garden produce for the citizens of Milwaukee and barley to the beer industry. Following a referendum in 1954, Brookfield became a city. It had a population of 7900 and encompassed 17.5 square miles. Currently the city covers 27 square miles and is home to 39,371 people.

In 2004, the city celebrated its 50th birthday. Brookfield now contains a diverse mix of residential, commercial, industrial and recreational land uses. Brookfield's urban forest is a mix of old woodlands and former agricultural land planted with trees when the land was developed. Many of trees planted on the large residential lots are now large enough to provide excellent benefits and give the community the perception of being 100 percent forested.

In the early years, like many other communities, the department of public works/highway department performed Brookfield's tree care. When the parks and recreation department was created in the mid-60s, care for the city-owned property and park trees was transferred to the new department. The highway department continued to care for the street or road right-of-way trees. Early street tree care consisted mainly of tree and stump removal and road clearance.

In 1995, the city developed an urban forestry management plan and ordinance. The initiative was funded in part by a DNR urban forestry grant after a lengthy process and review by all stakeholders. (We all know how territorial some individuals can be.) The urban forestry management plan and ordinance were approved in April 1998. The ordinance assigned the responsibility and authority for the care of all public trees and shrubs to the forestation committee. The procedures, guidelines and standards for urban forestry management and operations were established in the urban forestry management plan adopted by this committee. The management plan further stipulated that citywide forestry related management and operations be consolidated under the jurisdiction and guidance of the parks, recreation and forestry department utilizing both parks and highway personnel for maintenance activities. This basically consolidated all public tree care under the parks, recreation and forestry department. The ordinance also established a cooperative process with residents to address nuisance trees and shrubs located on private premises. Another key component of the ordinance established a review and/or permit process when any proposed

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Send your inquiries, address changes, or story ideas to Dick Rideout, richard.rideout@dnr.state.wi.us (608/267-0843) or Katherine Esposito, katherine.esposito@dnr.state.wi.us (608/267-0568)

Editors: Dick Rideout and Katherine Esposito
Contributors: Cindy Casey, Don Kissinger, Jeff Roe, Tracy Salisbury, Kim Sebastian, Kristina Skowronski and Olivia Witthun.

Articles, news items, photos and ideas are welcome.

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This newsletter is available in alternative format upon request and can also be downloaded in PDF format from our Web site: <http://dnr.wi.gov/org/land/forestry/UF/>

For breaking UF news, anecdotes, announcements and networking opportunities, sign up for The Urban Forestry Insider, DNR's twice-monthly e-newsletter. Archives are at <http://dnr.wi.gov/org/land/forestry/UF/resources/InsiderArchive.html>

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Project Profile:

Tree Planting Success in New Glarus

*by Kristina Skowronski
DNR Southeast Region*

Have you ever wondered how some small communities are able to plant large numbers of trees while facing personnel and budget constraints? The village of New Glarus is one such community. For the last nine years they have planted more than 450 trees with the help of the village beautification group and local high school FFA students.

Last year, with the assistance of an urban forestry grant, New Glarus was able to plant a record 92 trees in their community of 2000 people. In order to accomplish this feat, the village forester and beautification group worked with a group of approximately 25 high school students to plant the trees as a community service, not a class requirement. Each individual from the beautification group had a predetermined area of the village to plant in and supervised four to five students throughout the planting. Other partners that helped in the planting included the village clerk's office, department of public works, and the municipal light and water department.

Not only does this partnership enable the village to see more trees planted, it also provides a great volunteer opportunity to the students as well. The students are responsible for planting, staking, mulching and watering the trees, plus cleaning up the site. This opportunity gives them a sense of pride in keeping their community growing while teaching them about the benefits of trees in our communities.

This last year, the village was able to plant trees in their industrial park, in front of schools and in parks, as well as in front of residences. As part of their Arbor Day celebration, fourth and sixth grade students were invited to help plant fourteen trees on their school grounds.

All homeowners in New Glarus are invited to participate in the tree planting program, provided they have suitable growing space in their tree terrace. Residents are sent a letter each year asking if they would like to purchase a tree costing from fifteen to twenty dollars. This small investment allows them to use a tree selection guide to choose what tree they would like in front of their home. A few of the tree choices include Japanese tree lilac, Regal elm, ashes and crabapples. Homeowners wishing to plant a tree where overhead utility wires exist are given the option of planting a low-growing species. The tree is then planted, staked and initially watered by the students. Recipients of the trees are given a tree care

guide as well. The only requirement for the homeowner is to water the tree periodically for the first growing season.

For more information about the New Glarus planting project or something similar that might succeed in your community, contact Paul Jennrich at 608-527-2510, treeguy@tds.net. 🍁

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High school students prepare the hole for one of the many bare root trees to be planted.

Photos by Dan Ziegler, Agriculture Teacher, New Glarus High School



Students and Village Forester Paul Jennrich (right) mulch all the trees after planting is complete.

City of Brookfield

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work in city right-of-way will affect public trees.

In 1999, the city's first formal pruning cycle was initiated. The six-year cycle includes all street, park and right-of-way trees. The program uses certified arborists from the parks, recreation & forestry department and highway department personnel who received classroom and field training in proper pruning techniques. This partnership has worked extremely well. Both departments also supply the work force for tree and stump removal. This sharing of resources (labor and equipment) works well in a community the size of Brookfield and is viewed favorably by both departments and the city's leaders. The city also provides additional compensation to

those employees who maintain ISA arborist certification.

The engineering and forestry departments increased their communication in 1999, as directed by the urban forestry ordinance, to promote long-term good health of public trees. The

engineering department for the first time required all contractors to contact the parks and forestry department when trees were to be impacted during construction. The two departments also work as partners in the design and construction of public works projects to preserve and lessen the adverse impact on high-value trees. This has definitely increased our visibility and workload but the results have been very positive.

The city embarked on the most aggressive tree planting program in its history in 1999. Known as the Median Project Phase 1, the project includes over 275 trees and thousands of shrubs and perennials planted on arterial streets that previously had never been landscaped. Bluemound Road, considered by many as one of the most vibrant commercial strips in the state, was included in this project. A DNR urban forestry grant made the project possible. The city continues to plant about 100–200 trees per year. The forestation committee has initiated a phased planting program that is currently focusing on unplanted or reconstructed medians. A citywide median inventory completed in 2001 has been the basis/background for the planting program. Trees are planted by both in-house crews and contractors.

The gypsy moth has had an impact in Brookfield. At first it was thought of as a curse but as time went on, it appeared as more of an opportunity. The gypsy

moth control program started in 1998 and focused on public property to reduce the moth population and protect high-value public trees. The program approach includes population monitoring, egg mass removal, egg mass oiling, introduction of natural predators and limited *Bacillus thuringiensis* spraying. A major education component was initiated for both residents and professionals. Joining Appleton in 2000, Brookfield took a proactive approach, becoming part of the DNR's first aerial suppression spraying in the state. The forward-thinking approach and support of the forestation committee and common council prevented large-scale defoliation. This "opportunity" fostered the importance of the urban forest to the whole community and created greater appreciation of the benefits trees provide.

Communication with residents is an important part of our program. We provide information through a number of avenues: our Web site, a page in our department's activity guide called "Green & Growing" and quarterly citywide newsletters (although it is sometimes hard to get enough space to provide good information). Staff spends time answering resident calls, participating in neighborhood meetings, participating in High Interest Days, career days or visiting classrooms at local schools. We have found this outreach has certainly benefited our program, city residents and Brookfield's urban forest.

Like all communities, Brookfield is facing challenges or opportunities. As municipal budgets become tighter, the competition for resources will become greater. Fortunately, the department's forestry program continues to be funded.

The city is now preparing for the possibility of another exotic insect pest—emerald ash borer. Crews are trained in its identification and signs on dying ash trees. The programmed pruning cycle and removal of dead and dying ash trees has become important in monitoring for the borer. A plan has also been developed to use GIS to identify all ash locations, including naturalized areas.

With continued financial resources, innovative approaches and hard work, Brookfield's forestry program will continue to achieve its vision statement goals:

"The City of Brookfield's urban forest is to be multi-aged, fully stocked, healthy and safe. It will contain a wide variety of appropriate species and be maintained on a low cost but regularly scheduled basis. It will contribute to the general welfare of the residents by reducing energy costs, increasing property values, providing homes for wildlife, beautifying all neighborhoods and projecting an image of quality to visitors and prospective businesses. Care of public trees will also be used as a means to educate and inspire residents to properly care for trees on private property." ❁



Photo by Gary Majeskie

Governor Announces 2005 UF Grant Recipients

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“For many of us a mention of forests conjures up images of vast deep woods and wilderness settings,” said Governor Doyle, “but in reality, for the 80 percent of the population of Wisconsin who live in communities, the forest is all around us in the form of parks, greenways, streambanks, utility corridors, boulevards, schoolyards and backyards.

“Stewardship of our urban forests is as important to the quality and vitality of our villages, towns and cities as stewardship and sustainable management of our large public forests. These grants will fund projects aimed at improving a community’s capacity to manage its trees.”

The urban forestry grant program was established by the legislature in 1993. Grants can range from \$1,000 to \$25,000. Applicants must match each grant dollar for dollar. Applicants can be a city, village, town, county, tribal government or 501(c)(3) nonprofit organization. Information on applying for future grants is available on the Department of Natural Resources Internet site, dnr.wi.gov, under natural resources, forestry and urban forests.

“Urban forests improve our environment and add to the quality of life in our urban settings,” said Dick Rideout, coordinator of the Department of Natural Resources’ urban forestry program. “They cool our homes and streets, enhance property values, provide habitat for urban wildlife, encourage economic development and add to the aesthetic qualities of our communities.”

Urban forestry was one of the major topics at the Governor’s Conference on Forestry, held in Madison in November. It was well attended, with numerous private, public and nonprofit partners spending hours discussing topics of mutual interest and opportunities for cooperation. ✱

Recipients of Wisconsin DNR 2005 Urban Forestry Grants

Algoma	Grant: \$11,403.00
Antigo	Grant: \$7,736.00
Appleton, Ashwaubenon, Greenville, Howard, Menasha, Neenah, Oshkosh	Grant: \$4,474.00
Arena	Grant: \$3,780.00
Ashland	Grant: \$25,000.00
Ashwaubenon	Grant: \$25,000.00
Beaver Dam	Grant: \$11,350.00
Berlin	Grant: \$2,500.00
Blue River	Grant: \$4,088.00
Cambridge	Grant: \$16,500.00
Cedarburg	Grant: \$11,712.50
Clinton	Grant: \$6,227.00
Cottage Grove	Grant: \$6,000.00
Cudahy	Grant: \$9,175.00
Dane County Parks	Grant: \$10,228.00
Delafield	Grant: \$9,706.00
Eau Claire	Grant: \$1,496.00
Ellsworth	Grant: \$10,000.00
Elm Grove	Grant: \$12,000.00
Elmwood	Grant: \$3,128.00
Fond du Lac	Grant: \$5,825.00
Forest Home Preservation Association, Inc.	Grant: \$5,016.00
Fort Atkinson	Grant: \$25,000.00
Friends of Troy Gardens	Grant: \$21,343.00
Grafton	Grant: \$9,990.00
Greening Milwaukee	Grant: \$25,000.00
Greenville	Grant: \$23,925.00
Kenosha	Grant: \$6,842.00
Madison	Grant: \$25,000.00
Markesan	Grant: \$4,120.00
Menasha	Grant: \$3,331.00
Mequon	Grant: \$4,965.00
Middleton	Grant: \$3,091.00
Mid-State Technical College Foundation	Grant: \$25,000.00
Milton	Grant: \$10,000.00
Milwaukee	Grant: \$25,000.00
Monona	Grant: \$25,000.00
Town of Mosinee	Grant: \$12,642.00
City of Mosinee	Grant: \$2,959.00
Muskego	Grant: \$3,575.00
New London	Grant: \$8,639.00
Niagara	Grant: \$3,840.00
Oak Creek	Grant: \$7,330.00
Onalaska	Grant: \$13,000.00
Osceola	Grant: \$5,000.00
Owen	Grant: \$9,319.00
River Falls	Grant: \$2,500.00
Shorewood Hills	Grant: \$14,313.00
Sigurd Olson Environmental Institute	Grant: \$25,000.00
Sturtevant	Grant: \$25,000.00
Valders	Grant: \$3,000.00
Walworth	Grant: \$25,000.00
Waupaca	Grant: \$1,250.00
Waupun	Grant: \$2,500.00
Wauwatosa	Grant: \$2,300.00
West Bend	Grant: \$20,490.00

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Community Tree Profile:

Swiss Stone Pine (*Pinus cembra*)

by Laura G. Jull
Dept. of Horticulture
University of Wisconsin–Madison

Native To: Mountains of central Europe and Asia

Mature Height: 30–40', but can grow larger

Spread: 15–25'

Form: Narrow-upright to oval form, dense, becoming open and spreading with age

Growth Rate: Slow

Foliage: Evergreen, needle-like leaves in fascicles of five; soft but stiff, 2–4 1/2" long, dark green on upper surface, blue-green on lower surface with white stomatal bands, borne upright on branches; needles remaining 3–5 years, hence they are densely arranged on the stems with a fine texture

Buds and Stems: Stems are distinct, yellowish-brown to orange, pubescent (fuzzy) on one-year-old stems, similar to staghorn sumac (*Rhus typhina*). Older stems become grayish-brown to black. Terminal buds are large, pointed and resinous.

Fall Color: None; evergreen, but does lose some inner needles each fall

Cones: Greenish-purple cone turning purplish-brown, short-stalked, 2–3" long, egg-shaped, cone scales do not open fully until on the ground; lacks prickles on tips of cone scales. Cones are produced on older trees and are often hidden by the dense foliage. They fall from the tree after the second year with usually two seeds per thick cone scale.

Bark: Smooth, grayish-green when young, becoming ridged and furrowed.

Site Requirements: Prefers a loamy, slightly acidic to neutral soil; easier to transplant than most pines but does not like heavy clay soil. Prefers full sun and a moist, well-drained soil. It does not tolerate poor drainage or drought. Wind tolerant.

Hardiness Zone: 3b–7a

Insect & Disease Problems: Sensitive to aerial salt spray, resistant to white pine blister rust, but can root rot on poorly drained soils; deer can feed on the foliage.

Suggested Applications: Swiss stone pine is an excellent, medium-sized evergreen tree for the landscape. It requires less space than larger evergreen trees. It also has a denser growth pattern than eastern



Photograph from the Chicago Botanic Garden.

The dense, narrow-upright form of Swiss stone pine.

white pine (*P. strobus*) and is resistant—though not immune—to white pine blister rust. Swiss stone pine can make an excellent, low maintenance evergreen specimen tree for commercial and residential landscapes where soil conditions are conducive to growth. Dense branches close to the ground can provide screening of unsightly views.

Limitations: Hard to find in nurseries, but more nurseries are carrying this species. Slow growing and sensitive to poor drainage and salt spray. Not adapted to harsh urban conditions.

Comments: Swiss stone pine is an underused, beautiful, medium-sized evergreen tree suitable for commercial and residential landscapes where environmental conditions are favorable. It is cold hardy to zone 3b, hence, it can be planted in most of Wisconsin. Good alternative to the pest-prone Austrian pine (*P. nigra*) and Scots pine (*P. sylvestris*) in residential landscapes and is noninvasive. More resistant to winterburn than eastern white pine (*P. strobus*).

Common Cultivars or Selections:

'Chalet': very dense, rounded, columnar form, bluish-green foliage, 20–40' tall

'Columnaris': narrow, columnar form

'Compacta Glauca' (also known as 'Glauca Nana'): dense, upright form, glaucous foliage, slower grower

'Glauca': silvery-blue to bluish foliage, tall, slender, pyramidal form, 30–50' tall

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***Verticillium dahliae* — A Wilt Pathogen with Staying Power!**

by Glen R. Stanosz, Ph.D

Verticillium wilt can be one of the most devastating diseases of trees in urban and suburban landscapes. Although the fungus *Verticillium albo-atrum* affects many plant species, including herbaceous ornamentals and vegetables, the related species *Verticillium dahliae* is almost always the cause of this disease in trees and shrubs. *Verticillium dahliae* affects a wide variety of broadleaved trees and shrubs of all ages, killing young, recently planted trees on street terraces and old, well-established shade trees in yards and parks. It can linger for years, slowly deteriorating tree health, or strike rapidly to cause sudden death. But among the most dangerous characteristics of *Verticillium dahliae*, the fungus that causes most of the Verticillium wilt observed in woody plants, is its staying power.

Verticillium dahliae enters roots and spreads through the vascular tissues that transport water and nutrients. Although the pathogen will exploit wounds on roots, wounds are not necessary for infection. While the fungus grows within a tree it also produces spores, which can be carried upward in the sap, moving the pathogen quickly through even very large trees. As vascular tissues are colonized and killed, green to brown discoloration often results. Movement of water and nutrients slows and then stops, causing leaves to yellow, wilt and die. Affected branches may survive, restricting the pathogen to one or more annual rings of discolored sapwood, surrounded by new, healthy vascular tissues. Other twigs and branches may be killed completely, to result in dieback of the affected crown. Foliar symptoms and dieback may recur in successive years, and even appear in different years in different portions of the crown of the diseased tree to cause *chronic* disease. But *acute* disease can also occur, as massive invasion and killing of large portions of the vascular tissues throughout a tree or shrub in a single year leads to rapid death.

The staying power of *Verticillium dahliae* can be attributed to formation of **microsclerotia** (singular **microsclerotium**). These tiny but tough survival structures are clusters of very thick-walled fungal cells that develop in colonized tree and shrub shoots and roots. Individual microsclerotia are no bigger than the head of a pin, but thousands and thousands can form within a single diseased tree. As the fungus-colonized tissues decompose, these microsclerotia are released into the soil where they can lie dormant, but alive, for



Figure 1: Yellowed and wilted leaves and branch dieback are symptoms of *Verticillium* wilt in the crown of this sugar maple.

many years. Microsclerotia resist heat, cold, drying and activity of other microorganisms. Presence of host roots eventually stimulates germination of microsclerotia and subsequent infection.

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What Damaged This Tree?



Photo by Mary Ann Buenzow, WDNR

Turn to page 15 to find out . . .

<http://dnr.wi.gov/org/land/forestry/UF/>

***Verticillium dahliae* — A Wilt Pathogen with Staying Power!**

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Because microsclerotia are so persistent in soil, trees and shrubs killed by *Verticillium* wilt should not be replaced with the same or other susceptible species. The literature contains long lists of susceptible trees and many shrubs, including ash, buckeye, catalpa, elm, horsechestnut, lilac, magnolia, maple, serviceberry, smoketree and viburnum. Generally resistant trees and shrubs that can be considered as replacements include conifers (firs, junipers, pines and spruces), beech, birch, crabapple, hackberry, hawthorn, linden, oak, planetree and sycamore, poplar, walnut and willow. The UW–Madison Department of Plant Pathology Plant Disease Diagnostics Clinic

(www.plantpath.wisc.edu/pddc) can provide help to confirm *Verticillium* wilt.

Persistence of microsclerotia also means that movement of soil, even soil accompanying potted or balled-and-burlapped trees and shrubs may move *Verticillium dahliae*. Avoid stock, especially of susceptible species, from any nursery production area where *Verticillium* wilt has been known to occur. Demand this information from your nursery! Also, do not move soil to tree planting sites or gardens from areas where *Verticillium dahliae* is present. Be especially suspicious of topsoil removed from old farm fields, as many crops are affected and could leave extremely high numbers of microsclerotia behind in the soil.

Formation of microsclerotia in the tissues of trees also poses problems for disposal of diseased trees and shrubs. Research has demonstrated survival of *Verticillium dahliae* for at least one year in chips used as landscape mulch. Therefore, the chipping of branches and stems and use of the fresh chips in the landscape should be avoided. Thorough, commercial composting may reduce or eliminate the pathogen from chips, but proof (including the precise composting conditions necessary to kill microsclerotia) is lacking. ❁

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Glen R. Stanosz is a professor of forest pathology with the Departments of Plant Pathology and Forest Ecology and Management at the University of Wisconsin–Madison, and provides advice on tree health matters as a private consultant.

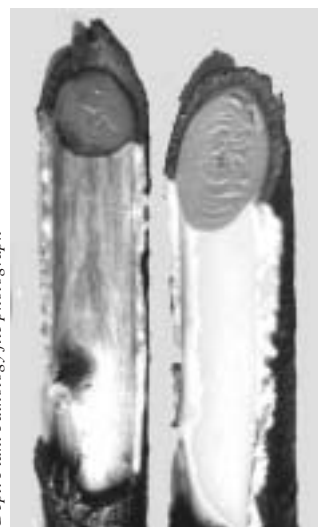


Figure 2: Peeling back bark of an affected twig may reveal green to brown discoloration of vascular tissues colonized by *Verticillium dahliae* (left), as compared to healthy twig (right).

Dept. Plant Pathology file photograph

Coming Events

April 18-20, 2005 – Trees & Utilities National Conference, Embassy Suites Downtown, Omaha, NE. Contact the National Arbor Day Foundation at 402-474-5655, www.arborday.org/programs/Conferences.html or conferences@arborday.org.

May 18, 2005 – Wisconsin Urban Forestry Council meeting, Prairie Oak State Office Building, Madison, WI. Contact Nathan Eisner, 608-264-8852 or nathan.eisner@dnr.state.wi.us.

May 23-25, 2005 – Urban Wildlife Management national conference, Lied Lodge & Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation at 402-474-5655, www.arborday.org/programs/Conferences.html or conferences@arborday.org.

May 24-25, 2005 – Level I Tree Climbing Methods & Best Practices, Madison, WI. Contact Arbor Masters at 860-429-5028 or Info@ArborMaster.com or www.arbormaster.com/home.htm.

May 26-27, 2005 – Level I Precision Felling, Chainsaw Handling, Safety & Ergonomics, Madison, WI. Contact Arbor Masters at 860-429-5028 or Info@ArborMaster.com or www.arbormaster.com/home.htm.

June 14-16, 2005 – Trees, People and Towns - Frontiers in Community Forestry, Cheyenne, WY. Contact Mark Hughes, 307-777-7586 or mhughe@state.wy.us.

July 14, 2005 – Wisconsin Arborist Association 2005 Summer Conference, Pierce Park, Appleton, WI.



White Pine Weevil Can Damage Spruce and White Pine Trees

by Linda Williams, Forest Health Specialist
DNR Northeast Region

White pine weevil (*Pissodes strobi*) is a native insect that can damage and kill the tops of young spruce, white pine and jack pine in both natural forests and urban plantings. During fall or winter you might notice that the terminal leader (top) of your young tree has died. If you look closely at the dead top you should see small round holes, about 2-3 mm in diameter, near the bottom of the dead terminal leader. These holes are where the adult white pine weevils chewed their way out of the stem after completing development.

In early spring adult weevils choose a tree and lay their eggs in small holes that they chew near the terminal buds of a spruce or white pine. These eggs hatch and the tiny larvae bore into the bark and start feeding in the cambium layer. They feed downwards under the bark until they have completed development sometime in mid to late summer. The larvae will pupate within the terminal leader and later chew their way out as adults, which then spend the winter on the ground.

The damage that the larvae do underneath the bark of the terminal leader is significant enough to cause the terminal leader to die. Often the dead and dying terminals will take on a shepherd's crook, or wilted, appearance as shown in the photo. When the terminal

Top of young tree killed
by white pine weevil.



Photo by E. Bradford Walker

leader dies, a lateral branch must take over dominance, which often creates a crook in the main stem of the tree.

White pine weevil prefers to feed on small trees, usually less than 20 feet tall. If your tree is taller than that it's probably safe from attack by this weevil. If your trees are shorter than 20 feet and are at risk for attack, you have several options to minimize damage from white pine weevil, including pesticide application, maintaining healthy trees or doing nothing. You can prevent attacks by applying a pesticide to the terminal leader in spring to keep the adults from selecting your tree to lay their eggs on. Pesticide application must be done early. By the time the terminal starts to droop and turn off-color, the damage is done and treatment will not work. White pines that are healthy and vigorously growing can drown the young larvae with pitch and save themselves from the damage the insect can cause. And finally, if you're not particularly concerned about the form of your tree and don't mind a crook in the stem, you can choose to do nothing. In this case, some of your trees may be attacked each year, but eventually they will grow tall enough that the weevil will no longer be interested in them. ❁

Contact Mark Freberg, 920-448-3379 or markfr@ci.green-bay.wi.us.

July 21, 2005 – Wisconsin Urban Forestry Council meeting, Superior, WI. Contact Nathan Eisner, 608-264-8852 or nathan.eisner@dnr.state.wi.us.

August 6-10, 2005 – International Society of Arboriculture Annual Conference, Gaylord Opryland Hotel, Nashville, TN. Contact: Jessica Marx at 888-472-8733 or jmarx@isa-arbor.com.

September 19-21, 2005 – Building Greener Communities National Conference, Lied Lodge & Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation at 402-474-5655, www.arboday.org/programs/Conferences.html or conferences@arboday.org.

October 4-5, 2005 – Level II Tree Climbing Methods & Best Practices, Madison, WI. Contact Arbor Masters at 860-429-5028 or Info@ArborMaster.com or www.arbormaster.com/home.htm.

October 6-7, 2005 – Level I Arborist Rigging Applications, Madison, WI. Contact Arbor Masters at 860-429-5028 or Info@ArborMaster.com or www.arbormaster.com/home.htm.

November 17-18, 2005 – National Urban Forest Conference, The Westin-Charlotte, Charlotte, NC. Contact: www.americanforests.org/conference/.

November 30, 2005 – Wisconsin Urban Forestry Council meeting, Prairie Oak State Office Building, Madison, WI. Contact Nathan Eisner, 608-264-8852 or nathan.eisner@dnr.state.wi.us.

If there is a meeting, conference, workshop or other event you would like listed here, please contact Dick Rideout at 608-267-0843 with the information.

Snags in Your Backyard

by Ricky Lien
DNR Urban Wildlife Specialist



In a recent article I told of a valuable source of land management information for private landowners called “Wildlife and Your Land.” This is a series of articles about managing your land for wildlife. One of the writings in this series discusses the value in leaving dead trees—both standing and on the ground—as a means to provide a critical component that can benefit up to 70 kinds of Wisconsin animals, including purple martins, tree swallows, fishers and most salamanders. On an outing to a county-managed forested park, I came across the signs of workmen who had recently removed some trees from the park. I don’t know the circumstances that called for the trees’ removal, but it reminded me of value of dead trees and the overzealous manner in which park and forest managers sometimes go after any tree that doesn’t measure up. So, let’s take a few moments to look at the value of “dead wood.”

[Author’s note – To those of you who are thinking, “He’s just picked this topic because he’s up against a deadline and he can just **borrow** information from an already existing article,” I say you’re nit-pickers. However, I’m not saying you’re wrong.]

Animals need food and shelter to survive and dead trees provide both of these basics. Standing dead trees, also known as snags, and those that have fallen

can harbor tremendous numbers of dead insects under their loosening bark and in all the cracks and crevasses. So, the trees provide shelter for these invertebrates and, in turn, the insects provide food for numerous other animals. As cavities develop, either through natural deterioration or from animals’ excavation efforts, the holes produced provide homes.

Additionally, variety in the kind and location of snags provide for an even wider range of conditions. So, if you’re actively managing a woodlot, consider leaving a mix of hardwood and softwood tree snags. Have some that are isolated, but leave others that are clumped. And to help out the process, you can consider creating snag trees by girdling living trees that may be diseased, deformed, or crowding other trees.

Beyond the extensive wildlife benefits that accrue from snags and fallen trees, consider also the educational benefits that might accrue if one of these trees is sited near a nature center or even a school. Not too long ago, a nature center asked to be allowed to place a dead deer on their land so that visitors could watch what happened to the carcass over the subsequent months. I quickly agreed to this request, applauding the center’s efforts to show how the death of one

continued on page 11

What Can a DNR Urban Forestry Grant Buy for Your Community?

continued from page 1

environmental goals. In Ashland’s case, the goal was to improve an existing tree inventory and become a Tree City USA. So the two formed a partnership and a committee—the Ashland Tree Management Advisory Board—and began to plan a strategy.

In 2003, the institute secured the first of three \$25,000 DNR Urban Forestry grants and matched it with labor donations from staff, students and community volunteers. In 2004, the institute secured a similar grant. This year, Ashland applied on its own.

With Ashland’s success under its belt, the Sigurd Olson staff are now turning their attention to other local communities. Washburn officials began to discuss the possibility of becoming a Tree City USA, completing a tree inventory and management plan, and assessing their public lands and lakeshore as their neighbor, Ashland, had recently done. The institute secured a \$25,000 DNR urban forestry grant for 2005 to help Washburn achieve these goals.



Ashland celebrates Arbor Day 2004.

The Sigurd Olson Environmental Institute may be able to help your northern community with its urban forestry efforts. Interested people may contact Mike Gardner, Coordinator of Cooperative Education and Research, 715-682-1481, mgardner@northland.edu or Stacy Schaefer, Urban Forestry Specialist, 715-682-1392, sschaefer@northland.edu. ❁

Photo by Sigurd Olson Environmental Institute

UW – Madison/Extension Diagnostics Facilities

by Kristina Skowronski
DNR Southeast Region

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At one point or another, most urban forestry professionals have had to send a plant sample in for diagnosis—whether it be insect, plant or environmental. If you haven't, then please read on for some great reference information should you ever have the need. But if you're like most urban foresters and have sent in samples, perhaps this information will help define the wide range of resources that you have at your fingertips through the diagnostic services at the University of Wisconsin—outside of just sending in a sample.

The University of Wisconsin – Madison/Extension Plant Disease Diagnostics Clinic has expert staff on hand that will analyze and provide recommendations on a whole gamut of problems that are caused from plants or the environment. The Insect Diagnostic Laboratory provides the same services for insect related problems. Their services are available for a nominal fee, but much information is provided free of charge on their Web sites.

Plant Disease Diagnostics Clinic

This clinic, run through the department of plant pathology, provides plant disease identification and control recommendations to homeowners, businesses and agricultural producers. This includes a wide variety of diseases, not just oak wilt and Dutch elm disease. The department of plant pathology also houses the Turfgrass Diagnostic Laboratory, which provides assessments of diseases, weeds, insects and environmental problems that affect turf grass.

The clinic is able to accept and analyze samples from whole plants, leaves, seedlings, branches (both deciduous and conifer), fruits and vegetables, roots and turf. And samples can be accepted from anywhere in the continental US. Typically, staff will analyze each sample both visually and through the microscope. When necessary they will incubate and/or isolate for the pathogen. Their analysis will also include recommendations for control.

A variety of related information can be found on their Web site at www.plantpath.wisc.edu/pddc. A sample of what information you will find there includes:

- A list of services provided and fees
- Instructions on how to collect a sample
- Plant disease profiles
- Education materials and disease factsheets
- The Wisconsin Disease Almanac – list of diagnoses made by the clinic.
- Links to other insect/disease related sites

Insect Diagnostic Laboratory

This laboratory has been operating since 1978 through the department of entomology. There, they identify insects and insect damaged plant material from throughout Wisconsin. Primarily, they focus their services to county extension and commercial concerns. However their Web site is home to a wealth of insect information for everyone including:

- An insect ID link
- Weekly insect highlights with hot links
- Educational information including insect bulletins

Their Web site can be found at www.entomology.wisc.edu/entodiag.html. Also listed on their Web site is how to collect and submit samples to their laboratory.

For more information on insect and disease questions, please check out the corresponding Web sites listed above for contact information. ❁

Snags in Your Backyard

continued from page 10

living thing contributes to the life of a whole multitude of other creatures. Likewise, but over a longer time scale, using a dead tree, or better yet, a number of dead trees of different types, in different locations, and at different stages of decay, can provide a wonderful look at the way natural systems let nothing go to waste.

Not all trees are suitable or should be left for snags; certainly disease and public safety concerns have to be taken into account. And a couple of the wildlife technicians in my office just returned from a day of cutting down some trees that were standing in the midst of a large area that was being restored to grassland, mainly because they wanted to discourage hawks from perching in the tree and picking off the grassland birds they were trying to promote. Still, the value of dead trees to those 70 species that I mentioned earlier that use them means we should pause before sending out crews to cut something down. If nothing else, think of the money you'll save when you don't have send out staff to cut down every tree.

To find out more about the value and management of dead trees, visit the "Wildlife and Your Land" series at www.dnr.state.wi.us/org/land/wildlife/publ/wildland.htm and look at "Critter Condos – Managing Dead Wood for Wildlife." ❁

Appraising Volunteer Performance

by Cindy Casey
DNR West Central Region

Performance evaluation is an important but often overlooked element of volunteer management. Substantive, objective performance measures can be applied to short-term project volunteers as well as those volunteers who are in the program for the longer haul. The following assessment tool—adapted from the fall 1992 issue of *Voluntary Action Leadership*—can be further adapted as necessary to fit specific program needs. And keep in mind that the program manager can benefit from a similar evaluation conducted by volunteers themselves! ✱

Volunteer's Performance Appraisal

	Unsatisfactory	Fair	Good	Very Good	Outstanding
Quantity of Work	unacceptable output; deadlines often missed <input type="checkbox"/>	work output &/or timeliness needs improvement <input type="checkbox"/>	produces required volume of work; meets deadlines <input type="checkbox"/>	often produces greater volume of work than required; on or ahead of schedule <input type="checkbox"/>	exceptional output; produces well above expected level; often ahead of schedule <input type="checkbox"/>
Quality of Work	frequent errors; incomplete or substandard results <input type="checkbox"/>	work quality needs improvement; few <input type="checkbox"/>	consistently acceptable & thorough errors; uses good judgment <input type="checkbox"/>	produces very thorough & accurate work; uses good judgment & has good ideas <input type="checkbox"/>	exceptionally thorough & accurate work; superior judgment & valuable ideas <input type="checkbox"/>
Reliability	frequently absent or late; fails to notify supervisor <input type="checkbox"/>	occasionally absent or late; sometimes fails to notify supervisor <input type="checkbox"/>	occasionally absent or late; notifies supervisor promptly <input type="checkbox"/>	seldom absent or late; notifies supervisor promptly or in advance <input type="checkbox"/>	highly reliable; notifies supervisor promptly or in advance; arranges to reschedule work <input type="checkbox"/>
Attitude	resists or is disinterested in meeting assigned objectives <input type="checkbox"/>	sometimes not conscientious or interested in meeting assigned objectives <input type="checkbox"/>	willing worker; follows directions; interested in meeting assigned objectives <input type="checkbox"/>	strong desire to produce; conscientious & willing worker <input type="checkbox"/>	exceptional desire to produce; enthusiastic, determined & success oriented <input type="checkbox"/>
Cooperation	not a team player; causes unnecessary work disruption <input type="checkbox"/>	sometimes uncooperative or disruptive <input type="checkbox"/>	generally cooperative; interacts well with most other team members <input type="checkbox"/>	very cooperative; interacts very well with team members <input type="checkbox"/>	exceptionally cooperative; effective interactions even under difficult circumstances <input type="checkbox"/>
Public Contact	antagonizes public <input type="checkbox"/>	avoids or is indifferent to the public <input type="checkbox"/>	generally willing to make public contact when asked <input type="checkbox"/>	approachable & responsive; willing to help & explain <input type="checkbox"/>	public interaction is exceptionally enthusiastic, perceptive & articulate <input type="checkbox"/>

The Idea Exchange...

compiled by Jessica Schmidt
former DNR Regional Urban Forestry Assistant,
Northeast Region

Houston to Include Trees in State Implementation Plan

The City of Houston, Texas, (pop. 1,953,600), has taken steps to preserve trees. A coalition of 20 organizations and agencies, in cooperation with American Forests, has come together to advocate the major reforestation of the Houston region. The group, called Houston Green, has performed an Urban Ecological Analysis for the Houston Gulf Coast region to study the benefits that trees provide to a community. The Houston Green UEA will be used to help formulate decisions in reducing Houston's air quality problems and provide direction for future regional development issues. *Info:* www.livablehouston.org/houstongreen.

Mississippi Urban Forestry Campaigns

The Mississippi Urban Forest Council has created four new urban forestry campaigns with the objective of involving more groups in urban forestry and promoting the benefits of urban and community forestry to all communities.

- Scenic Communities of Mississippi is a listing of all programs, grants and technical services available to counties and cities to assist them in managing natural resources.
- Ribbons of Green is a way for high school students to impact their local community as well as learn about careers in natural resource-related fields including urban forestry.
- Trees for the Troops will be held on Arbor Day in February 2005, at the state capital. MUFC will give away trees to anyone wanting to plant a tree in honor of an individual involved in our current conflict.
- The Mayor's Tree Planting Challenge is a competition among mayors to recognize the number of trees planted in their community over the next year.

Info: Donna V. Yowell, Mississippi Urban Forest Council, 601-856-1660

Arkansas Launches Shade Tree Program

The Urban and Community Forestry Program of the Arkansas Forestry Commission has successfully launched a Shade Trees on Playgrounds (STOP) Skin Cancer program. Through STOP, nine schools and hundreds of children welcomed new trees and many local leaders participated as well. Schools were selected for this program based on their lack of shade trees. A curriculum was prepared for the teachers and used for designing posters, and students were also assigned the responsibility of caring for the trees. By working with each of the schools to give their playgrounds badly needed trees, the urban forestry representatives, local foresters and the program coordinator were able to promote the Urban and Community Forestry Program simultaneously to staff, students, parents, state representatives and local communities. *Submitted by Patti Erwin, Arkansas Forestry Commission, 479-442-8627, perwin@arkansasusa.com.*

Keep the Memory (and the Tree) Alive: A New Web Feature from the National Arbor Day Foundation

This new feature gives anyone who plants a tree as a memorial or in celebration of a special occasion the opportunity to see the real difference their donation is making, thanks to the sponsorship of Bartlett Tree Experts. The National Arbor Day Foundation's new interactive Trees in Memory and Trees in Celebration Web features give donors a place where they can "virtually" explore the forest and general location where their trees have been planted. The Web pages include educational maps and photos, as well as descriptions of the forests and planting projects. It also includes a description of the benefits the trees are providing. You can visit the site at www.arborday.org. 🌳

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Does your community or organization have an idea, project or information that may be beneficial to others? Please let your regional urban forestry coordinator know. We will print as many of these as we can. If you see ideas you like here, give the contact person a call. They may be able to help you in your urban forestry efforts.

Governor's Conference on Forestry

by Dave Liska, Chairman
Wisconsin Urban Forestry Council

Greetings! The dregs of winter are reluctantly waning as this message is being scribbled. While the weather may still be somewhat gloomy, a major event involving urban forestry, mentioned in my last message, occurred that is nothing less than exciting.

The Governor's Conference on Forestry: "Building Collaborative Action" was held last November in Madison. Urban Forestry was one of the seven themes represented. This was a quantum leap for all urban forestry professionals; for the first time, we were being recognized as one of the key players with regard to forestry issues in Wisconsin. The Urban Forestry Council assembled a "theme team" that was graciously championed by the council's Joe Wilson. After a morning general session, the seven venues broke out into facilitated and quite intense action planning sessions. The intent was to identify the dominant issues and concerns within each venue.

In addition, each group was directed to identify those areas where mutually shared concerns existed. This would then establish common ground and provide linkages with which to build future partnerships. The urban group identified three of these shared areas: invasive exotic species; fragmentation of existing woodland/natural areas and loss of cover canopy; and ongoing forest assessment.

All of this information was collected, distilled and summarized. It was then presented the following morning along with the information from the other six groups.

What resulted was the realization that there exists a myriad of commonality that links all of us who perform under the banner of forestry in Wisconsin!!

Not surprisingly, the top two action items arising from the Urban Forestry session were for awareness, in the form of public education/information, and urban forest assessment (quantification). The awareness issue has already been identified as a top priority in the DNR Urban Forestry, Wisconsin Arborist Association and Urban Forestry Council strategic plans. All of this is merely a first giant step. A post-conference steering committee was established to continue the work that was initiated at the conference.

The bottom line here, folks, is that all of us are players in the effort to create an awareness for the importance and the value of urban trees. Communication and partnering need to occur well beyond the normal sphere of those who are already devotees.

We've all got a big job to do!! See you next time.

Editor's note:

Last fall, DNR Urban Forestry premiered a new communication tool, the Urban Forestry Insider. It is a Web-based newsletter, issued every two weeks, available to those in the UF or related communities and groups as a venue to showcase ideas and network with others. We welcome your ideas and contributions. Contact editor Katherine Esposito at katherine.esposito@dnr.state.wi.us, or use this link:

<http://dnr.wi.gov/org/land/forestry/UF/resources/InsiderArchive.html> ✱

Swiss Stone Pine (*Pinus cembra*) *continued from page 6*

'Nana': slower growing than the straight species, dwarf, pyramidal form, 15' tall

'Pygmaea': beehive form with short, dark-green needles with a ruffled to tufted appearance, 8–12' tall

'Klein': Silver Whispers™ dense, similar to the species but cited as growing only 12' tall, 6' wide

'Silver Sheen': similar to 'Glauca', tall, slender, pyramidal form, silver-blue foliage

'Stricta': rare, tightly columnar form

References:

Landscape Plants for Eastern North America, 2nd ed., 1997, by H. L. Flint, John Wiley and Sons, Inc., New York.

Manual of Cultivated Conifers. 1985, by G. Krüssmann, Timber Press, Portland, OR.

Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses, 5th ed. 1998, by M. A. Dirr, Stipes Publishing, Champaign, IL.

The Right Tree Handbook, 1991, by H. Pellett, N. Rose, and M. Eisel, University of Minnesota Extension Service, St. Paul, MN.

North American Landscape Trees, 1996, by A. L. Jacobson, Ten Speed Press, Berkeley, CA.

Plants that Merit Attention: Vol. 1 Trees, 1984, The Garden Club of America, J. M. Poor, (ed.), Timber Press, Portland, OR. ✱

Urban Forestry Resources:

Tree Selection

compiled by Cindy Casey
DNR West Central Region

Web Sites & Web Based Resources

<http://hcs.osu.edu/plantfacts/> – Ohio State University, Plant Facts

Look up plant features, cultural information and color images of trees, shrubs, vines and other plants in the *Images* database. Information is detailed and the photo images are excellent. Plants can be searched by common or scientific name. Other searchable features on the Plant Facts site include a glossary of horticultural terms, landscape and garden tips, and an Internet search engine that deals strictly with plants.

www.hort.uconn.edu/plants/ – University of Connecticut, Plant Database

Similar features as OSU's Plant Facts, but with more cultivar listings. The site also includes a plant identification key and a Plant Selector—a database query feature based on desired traits, site characteristics and other criteria selected by the user.

www.na.fs.fed.us/spfo/pubs/UF/uts/ – Urban Trees and Shrubs: A Guide to the Selection of Trees and Shrubs in Urban Areas

Produced by Chicago Botanic Garden, Penn State and USDA FS, this on-line slide show is useful for quickly selecting trees based on mature height. Plants are grouped into three sections: deciduous trees, deciduous shrubs and conifers.

<http://cecommerce.uwex.edu/pdfs/A2865.PDF> – Guide to Selecting Landscape Plants for Wisconsin

Published by UW–Extension, this extensive list of trees, shrubs, vines and groundcovers is presented in table format for easy comparison. Plants are divided into deciduous and evergreen types and are further categorized by mature height. Contains some species no longer recommended due to invasiveness. No photos.

Publications

Landscape Tree Factsheets, the title of the third edition of the former *Street Tree Factsheets*, is available from the Publications Center, College of Agricultural Sciences, 112 Agricultural Administration Building, University Park, PA 16802 for \$30.00, shipping included. It contains 26 additional deciduous cultivars plus 4 pages of evergreens useful for screening. Call toll-free, 877-345-0691 to order, or 814-865-6713 for information. ❁

Research Notes:

Involvement of Women and Minorities in the Urban Forestry Profession

by Michael R. Kuhns, Hope A. Bragg, and Dale J. Blahna
Dept. of Forest Resources, Utah State University

A nationwide study found that 10 percent of urban forestry professionals were women and five percent were minorities. Women in urban forestry were younger, better educated, less likely to make more than \$50,000 per year and had been on the job a shorter time than white males. Women most often held public or private nonprofit positions. Minority urban forestry professionals were slightly older, less educated, and were more likely to make more than \$50,000 per year than were women or white males. Minorities most often held middle management positions in the private or public sector in arboriculture, municipal forestry or landscape maintenance. These results illustrate how minorities and women are currently represented in this profession. As urban forestry evolves, the number of women and minorities will continue to change. ❁

Reference: *Journal of Arboriculture* 28(1):27–34, January 2002

Green Bay DNR Gets New Digs!

The DNR office in Green Bay is moving. As of April 11, the new address and phone numbers are:

Tracy Salisbury
Regional Urban Forestry Coordinator
Northeast Regional Headquarters
2984 Shawano Ave., PO Box 10448
Green Bay, WI 54307-0448
Phone 920-662-5450 • Fax 920-662-5413

Olivia Witthun
Regional Urban Forestry Assistant
Phone 920-662-5485

What Damaged This Tree?

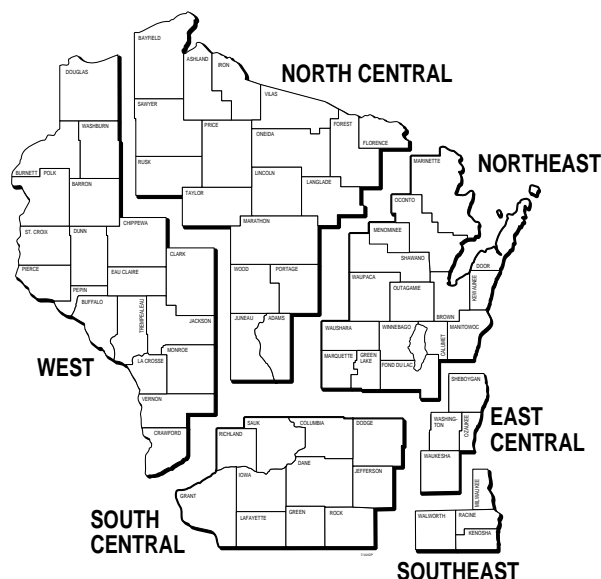
Answer: DNR forester Mary Ann Buenzow took this picture of a silver maple in her neighborhood. Apparently the homeowner didn't like the surface roots that kept the grass from growing so they "took care of the problem." ❁

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Do you have pictures of tree damage others ought to know about? Send them to Kim Sebastian (address on page 16) and we'll print them here!

Wisconsin DNR Urban and Community Forestry Contacts



World Wide Web Site: www.dnr.state.wi.us/org/land/forestry/uf/

West

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